

and that examples of *Rhamphastos carinatus* and *Felis mitis* had been acquired by purchase; that a Virginian Deer (*C. virginianus*) had fawned on June 16, and the Sambur Deer (*C. hippelaphus*), presented by Capt. Molison, had fawned on June 19. The period of gestation in the latter species appears to be eight months and twenty-four days.

Letters had been received from Lieut. Tyler, R.E. (Santa Lucia), R. J. Bouchier, Esq. (Malta), and A. N. Shaw, Esq. (Bombay).

Dr. Melville gave an oral exposition of Dr. Kaup's views of the natural arrangement of Birds, derived from a paper by that distinguished ornithologist, which he was engaged in translating for publication. Dr. Melville's address was illustrated by the original diagrams transmitted to him by Dr. Kaup.

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July 10, 1849.

Harpnr Gamble, Esq., M.D., in the Chair.

The Secretary stated that he had the pleasure of reporting the safe arrival of the animals announced at the meeting of Feb. 27 as having been presented by Lieut.-Colonel Butterworth. In addition to this liberal donation from the Governor of Singapore, which the Society could not fail to regard as a valuable proof of His Excellency's interest in the Institution, the great collection from Egypt had been successfully transported to the Gardens, and the combined accessions formed by far the most important aggregate ever introduced at the same period.

The species presented by his late Highness Ibrahim Pasha were as follow:—

*Camelopardalis giraffa*, ♀.  
*Antilope leucoryx*, ♀ ♀.  
 „ *nasomaculata*, ♂ ♀.  
 „ *dorcas*, 3 ♂, 2 ♀.  
*Camelus dromedarius*, ♂ ♀.  
*Struthio camelus*, ♂ ♀.

The species collected by the Hon. C. A. Murray were:—

*Cynocephalus hamadryas*, ♂.  
*Felis Leo*, 3 ♂.  
 „ *jubata*, ♀.  
*Camelopardalis giraffa*, ♀.  
*Struthio camelus*, 2 ♂.  
*Porphyrio smaragnotus*, ♂ ♀.  
*Phœnicopterus antiquorum*.  
*Pelecanus crispus*, ♂ ♀ et juv.

*Naia haje.*  
*Cerastes Hasselquistii.*  
*Psanmosaurus griseus.*  
*Uromastix spinipes.*  
*Stellio vulgaris.*  
*Gongylus ocellatus.*  
*Sphenops capistratus.*  
*Tarentola ægyptiaca.*  
*Chamæleo vulgaris.*

A male Giraffe and a male Leucoryx, which were to have been included in the gift of His Highness Ibrahim Pasha, and a fine male Lion, the gift of the Hon. C. A. Murray, died in the transit from Cairo to Alexandria. The remainder of the collection, amounting to 18 Mammalia, 14 Birds, and 60 Reptiles, were conveyed from Alexandria in the Peninsular and Oriental Company's Steamer 'Indus,' without the loss of a single individual.

The species presented by Lieut.-Colonel Butterworth were:—

*Helarctos malayanus.*  
*Casuarinus emu.*  
*Grus antigone, ♂ ♀.*

Mr. E. Doubleday exhibited specimens of the larva, pupa, and perfect insect of *Sirex gigas*, an insect mostly very rare in Great Britain. These specimens were sent to Mr. Gray from Bath by Mr. Brunel, and were accompanied by fragments of the wood on which the larvæ had fed.

It appears that about eighteen months since a quantity of larch-trees were cut in the neighbourhood of Bath, and after having been used as scaffolding-poles in the repairing of one of the churches of the city, were applied to a similar purpose at the railway-station. From these poles thousands of individuals, chiefly females, of *Sirex gigas*, are now coming forth. From the specimens exhibited, it would seem that the larvæ prefer the soft sap wood to the more solid internal part of the trees, penetrating this part longitudinally at a little distance from the bark, the perfect insect gnawing its way through when ready to make its appearance. (Annulosa, Pl. XII.)

Mr. Doubleday remarked that there was here ample evidence to disprove St. Fargeau's idea, that this fine insect is a parasite upon some timber-boring beetles, an opinion already controverted by Mr. Westwood and others. The larva, pupa, and perfect insect are beautifully figured by Ratzeburg in his work on insects injurious to forests; but he gives no details of the habits of the insect, nor any figures indicating the mode of life of the larva.

The following papers were read:—

1. DESCRIPTION OF TWO NEW SPECIES WITH THE CHARACTERS OF A NEW GENUS OF TROCHILIDÆ. BY JOHN GOULD, F.R.S. ETC.

Genus HELIODOXA, Gould.

Bill straight or slightly curved downwards, of moderate length;

nostrils covered by an operculum; wings pointed, rigid, of moderate size, and well-adapted for sustaining flight; tail of moderate size, considerably forked; feet of moderate size; the outer toe and claw shorter than the inner toe and claw; the hind toe and claw the shortest of all; tarsi clothed with fine feathers.

Species, *H. jacula*, *H. Leadbeateri* (*H. Otero*?), *H. rubinoïdes*, and *H. rubinia*?

#### HELIODOXA JACULA, Gould.

Male: crown of the head, breast and abdomen resplendent metallic green; in the centre of the throat a crescentic mark of metallic blue; the metallic green of the crown running to a point towards the occiput; back of the neck, back, and upper wing-coverts bronzy green; under wing-coverts and flanks grass-green; wings purplish brown; upper tail-coverts purplish brown with green reflexions; under tail-coverts dark brown with green reflexions; tail considerably forked and of a bluish black; thighs and tarsi white; feet blackish brown; bill black.

Total length  $5\frac{1}{4}$  inches; bill  $1\frac{1}{8}$ ; wing 2; tail  $2\frac{3}{8}$ ; tarsi  $\frac{1}{4}$ .

Female: crown of the head and upper surface green; throat shining metallic green, the white bases of the feathers showing through and giving the throat a speckled appearance; tail bluish black tipped with white; in some specimens the lores are buff, and a line of the same hue extends beneath the eye; thighs white; under tail-coverts dull green; bill black.

*Hab.* Santa Fé de Bogota.

*Remark.*—This splendid new species, which I have recently received from Santa Fé de Bogota, is precisely of the same form and about the size of the *T. Leadbeateri* of authors.

#### ERIOPUS SIMPLEX, Gould.

The entire body obscure olive-green; the crown of the head and back of the neck tinted with purple; rump and upper tail-coverts a very little brighter than the back; under tail-coverts dull bluish purple; wings purplish brown; tail considerably forked, and black with purplish reflexions; thighs and tarsi thickly clothed with snow-white plumes; bill and feet black.

Total length  $4\frac{3}{8}$  inches; bill  $\frac{7}{8}$ ; wing  $2\frac{1}{4}$ ; tail 2.

*Remark.*—The only specimen I have seen is in the collection of E. Wilson, Esq.; it is most nearly allied to *E. cupreovertris*, but its uniform dusky colour renders it conspicuously distinct. It was received in a collection sent from Santa Fé de Bogota.

### 2. DESCRIPTIONS OF SIXTEEN NEW SPECIES OF BULIMUS, IN THE COLLECTION OF H. CUMING, ESQ., DISCOVERED BY MR. WILLIAM LOBB IN THE ANDES OF PERU. BY LOVELL REEVE, F.Z.S.

1. *BULIMUS CLAUSILIOIDES.* *Bul. testá elongato-turritá, sinistrali, compressè umbilicatá, anfractibus novem, supernè obscurè*

*costatis, longitudinaliter creberrimè et minutissimè rugoso-striatis, columellâ verticaliter reflexâ, aperturâ subquadratâ, labro tenui, simplici; colore murino.*

*Hab.* Andes of Caxamarca, Peru; W. Lobb.

Very like a *Clausilia* in form, and of a silken aspect, arising out of the very close and minute development of longitudinal striæ.

2. **BULIMUS NIGROPILEATUS.** *Bul. testâ acuminato-ovatâ, subampliter umbilicatâ, anfractibus septem, convexis, obtusè subrugoso-striatis, columellâ verticaliter reflexâ, aperturâ ovali, labro simplici; albidâ, basin versus obsoletè fusco-fasciatâ, apice nigro.*

*Hab.* Chachapoyas, Alto Peru; W. Lobb.

It is probable, from the faintly-banded appearance of this shell, that this is but the pale variety of a darker type.

3. **BULIMUS FOVEOLATUS.** *Bul. testâ oblongo-ovatâ, tenuiculâ, subventricosâ, haud umbilicatâ, ad apicem obtusâ, anfractibus quinque ad sex, convexis, longitudinaliter obtusè plicato-striatis, punctis oblongis spiraliter lineatim exsculptis, infra suturas plicato-crenulatis, apicem versus peculiariter foveolatis, suturis rudibus, anfractu ultimo obliquè descendente, columellâ latâ, depressiusculâ, obliquè recedente, aperturâ oblongo-ovali, labro subincrassato, vix reflexo; intensè olivaceo-brunnâ, infra suturas pallidè unifasciatâ, suturis albidis, columellâ labroque cærulescente-albis, aperturae fauce iridescente-lilaceâ.*

*Hab.* Vitoe, near Sarma, Alto Peru; W. Lobb.

This is the species which Dr. Pfeiffer has assigned to the *Bulimus Mahogani* of Sowerby, Conch. Illustr. f. 59; a species of the *B. roseus* or *hæmastoma* type, of which I can find no description or tidings.

The species under consideration will be found, on comparison with Sowerby's figure, to be of a more oblong form, more acuminate at the apex, and very peculiarly indented round the upper sutures, reminding one very much of the indentations in the shells of *Phorus*.

4. **BULIMUS DEPSTUS.** *Bul. testâ subacuminato-ovatâ, compressè umbilicatâ, anfractibus septem, rotundatis, lævibus, supernè depressiusculis, minutè plicato-crenulatis, columellâ reflexâ, aperturâ parviusculâ, labro simplici, intus extusque ustulato-fuscâ, hic illic saturatiore-strigatâ.*

*Hab.* Chachapoyas, Alto Peru; W. Lobb.

A thin shell, approaching in form and colouring to the *Bulimus nux*, from which it differs in being of lighter structure, and having a more rounded aperture.

5. **BULIMUS SCITULUS.** *Bul. testâ subfusiformi-oblongâ, vix umbilicatâ, anfractibus octo, leviter convexis, lævibus, columellâ parum reflexâ, aperturâ subangustâ, labro simplici; albidâ, purpureo-cæruleo tinctâ, basin versus ferrugineo-rufâ, lineis subtilibus albis, irregulariter undulatis, creberrimè longitudinaliter notatâ.*

*Hab.* Chachapoyas, Alto Peru; W. Lobb.

Neatly marked with fine white waved lines upon a purple-blue ground, tinged towards the base with a bright rust-red.

6. *BULIMUS CUZCOENSIS*. *Bul. testá acuminato-oblongá, subcylindraceutá, subcompressè umbilicatá, anfractibus octo, leviter convexis, sub lente striatis et corrugato-indentatis, columellá reflexá, aperturá parviusculá, labro simplici; fulvescente-spaldicé.*

*Hab.* Cuzco, Bolivia; W. Lobb.

Of a delicate nankeen colour throughout.

7. *BULIMUS PRÆTEXTUS*. *Bul. testá acuminato-oblongá, subcylindraceutá, subampliter umbilicatá, anfractibus octo, leviter convexis, lævibus vel obscurè indentatis, columellá latissimè reflexá, aperturá parviusculá, labro simplici, paululum reflexo; lacteá, cæruleo-nebulatá, maculis rotundatis albidis promiscuè floccatá, lineis minutis albidis undulatis longitudinaliter creberrimè notatá, apice fuscéscente.*

*Hab.* Andes of Caxamarca, Peru; W. Lobb.

A delicate blue-clouded shell, sprinkled with a few white flakes, and very closely marked with fine white lines, which are irregularly waved and sometimes ramified like veins.

8. *BULIMUS LOBBII*. *Bul. testá subcylindraceuto-oblongá, compressè umbilicatá, aperturam versus subobliquè tumidá, anfractibus octo, leviter convexis, lævibus vel obscurè indentatis, columellá latè expansá, aperturá obliquè effusá, labro reflexo; albá, vittis longitudinalibus fuscéscentibus et purpureo-castaneis irregulariter conspicuè pictá, ponè labrum et aperturæ fauce purpureo-nigricante.*

*Hab.* Banks of the Maranon, near Balsas, Peru (on branches of a species of *Jatropha*); W. Lobb.

This fine species is of a delicate cream-white, striped longitudinally by distinct ribands of light brown and dark purple chestnut, without any of intermediate tint. Immediately behind the lip there is more of the dark purple chestnut, approaching to black, and the interior of the aperture is coloured with the same, having a somewhat metallic hue.

I have the pleasure to name it in honour of Mr. William Lobb, botanical collector of Messrs. Veitch and Son, the eminent nurserymen of Exeter, to whose zeal in the pursuit of natural history the discovery of these interesting species bears honourable testimony.

9. *BULIMUS PURPURATUS*. *Bul. testá subacuminato-ovatá, compressè umbilicatá, anfractibus sex, convexis, longitudinaliter rugoso-corrugatis, ad suturas plicato-crenatis, anfractu ultimo ventricosiusculo, columellá reflexá, labro simplici; purpureo-fuscá, lineis albidis hic illic longitudinaliter interruptá, basi et aperturæ fauce albidá.*

*Hab.* Andes of Caxamarca, Peru; W. Lobb.

A rather stout, rough shell, stained with dark purple brown.

10. *BULIMUS RHODOLARYNX*. *Bul. testá acuminato-ovatá, basin*

*versus obliquè ventricosá, ampliter umbilicatá, anfractibus septem ad octo, subrotundatis, lævibus, sub lente striis obliquis elevatiusculis et spiralibus incisís minutè decussatis, aperturá suborbiculari, columellá labroque latè reflexis; roseo-albicante, intus purpureo-rosé.*

*Hab.* Banks of the Aparimao, Alto Peru; W. Lobb.

Distinguished by its very delicate purple-rose interior, the colour of which is seen through the substance of the shell.

11. *BULIMUS DECUSSATUS.* *Bul. testá acuminato-oblongá, basi rotundatá, subcylindraccá, compressè umbilicatá, anfractibus octo, leviter convexis, longitudinaliter corrugato-striatis, ad suturas subcrenulatis, columellá latè reflexá, labro tenui, simplici; pallidè stramineá, strigis brevibus rufo-fuscis longitudinalibus et obliquis fasciatim decussatis peculiariter notatá.*

*Hab.* Andes of Caxamarca, Peru; W. Lobb.

Singularly characterized by the bands of short brown streaks, ranging obliquely in the direction opposed to the lines of growth.

12. *BULIMUS MYRISTICUS.* *Bul. testá acuminato-oblongá, basi subobliquè rotundatá, compressè umbilicatá, anfractibus octo ad novem, planulato-convexis, longitudinaliter striatis, infra suturas subcrenulatis, columellá latè reflexá, labro simplici; albidá, vittis irregularibus castaneis et fusciscentibus confertim longitudinaliter pictá.*

*Hab.* Andes of Caxamarca, Peru; W. Lobb.

This differs but little from the preceding species in form and detail of sculpture; yet there is a marked distinction in the style of painting.

13. *BULIMUS ALTO-PERUVIANUS.* *Bul. testá acuminato-ovatá, tenuiculá, ampliter compressè umbilicatá, aperturam versus obliquè ventricosá, inflatá, anfractibus septem, convexis, apicem versus creberrimè elevato-striatis, striis spiralibus incisís sub lente minutè decussatis, columellá latè verticaliter reflexá, aperturá obliquè suborbiculari, labro effuso, non reflexo; fulvescente lacteá, apicem versus cærulescente, lineis castaneis subdistantibus irregulariter longitudinaliter notatá, maculis brevibus contrariè obliquis bifasciatim pictá, macularum serie unicá infra suturas.*

*Hab.* Chachapoyas, Alto Peru; W. Lobb.

The painting of this delicate and boldly convoluted shell is singularly characterized by two bands of short oblong chestnut spots or dashes, ranging obliquely in a direction contrary to that of the painted lines.

14. *BULIMUS ALUTACEUS.* *Bul. testá oblongo-ovatá, umbilicatá, anfractibus septem, convexis, creberrimè corrugato-striatis, aperturá ovali, columellá reflexá, labro vix reflexo; intensè ustulato-castaneá, zonulá unicá albá medio cingulatá, labro albo.*

*Hab.* Cuzco, Bolivia; W. Lobb.

The entire surface of this shell is sculptured longitudinally with very closely-packed crinkled striæ.

15. **BULIMUS PRIMULARIS.** *Bul. testâ acuminato-ovatâ, tenuicullâ, subventricosâ, umbilicatâ, anfractibus septem, lævibus, columellâ tenui reflexâ, labro simplici; albidâ, basin versus vividè luteâ, fasciis castaneo-nigris quatuor aut pluribus, nonnullis multò interruptis, cingulatâ.*

*Hab.* Chachapoyas, Alto Peru; W. Lobb.

Of simple structure, but abundantly characterized by its bright primrose colour and dark basal bands.

16. **BULIMUS COLUMELLARIS.** *Bul. testâ cylindraceo-elongatâ, haud umbilicatâ, anfractibus septemdecim ad octodecim, planis, angustis, obliquè subobsoletè striatis, anfractu ultimo ad basin subangulato, columellâ tortuosâ, leviter recedente, aperturâ subquadratâ, ad basin effusâ; roseo-albicante, apicem versus livido-cærulescente et rufescente.*

*Hab.* Andes of Caxamarca, Peru (under stones at an elevation of 12,000 feet); W. Lobb.

An interesting *Pupa*-like species, distinguished by its square effuse aperture and erect columnar form.

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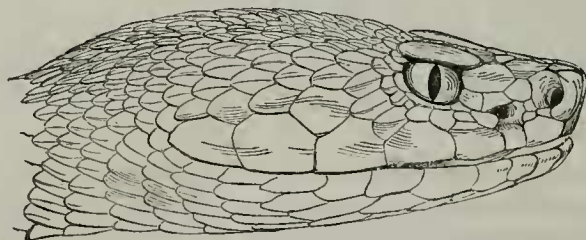
July 24, 1849.

John Edward Gray, Esq., F.R.S., in the Chair.

The following papers were read:—

1. NOTES ON THE SERPENTS OF ST. LUCIA. BY LIEUT. TYLER, R.E. COMMUNICATED BY THE SECRETARY.

Of the snakes of the island of St. Lucia, the most numerous species is the “*Rat-tail*;” then follow the “*Couresse*,” the “*Clibro*,” and the “*Tête Chien*;” and in this order I propose to give you, as I promised, a short description of each.



1. **CRASPEDOCEPHALUS ATROX**, Gray. The Rat-tail Serpent.